## **REMARKS**

Claims 112-118, 120, 123-124, 127, 131-134, 137-139, 141-145, 147-153, 157-158, 161, 165-168, 171-173, 175-178, 180-190, 192, 196-197, 200, 204-207, 210-212, 214-217, and 219-224 were pending in the application. Claims 149 and 182 have been amended. Accordingly, when the amendments presented herein have been entered, claims 112-118, 120, 123-124, 127, 131-134, 137-139, 141-145, 147-153, 157-158, 161, 165-168, 171-173, 175-178, 180-190, 192, 196-197, 200, 204-207, 210-212, 214-217, and 219-224 will be pending. No new matter has been added.

Applicants reserve the right to pursue the claims as originally filed in one or more continuing applications.

Rejection of Claims 149-153, 157, 158, 161, 165-168, 171-173, 176-178, 180-190, 192, 196, 197, 200, 204-207, 210-212, 214-217, 219 and 220 Under 35 USC 101

The Examiner has rejected claims 149-153, 157, 158, 161, 165-168, 171-173, 176-178, 180-190, 192, 196, 197, 200, 204-207, 210-212, 214-217, 219 and 220 as being, allegedly, directed to non-statutory subject matter. Applicants disagree with the Examiner's assertion. However, in the interest of expediting prosecution, and in no way acquiescing to the validity of the Examiner's rejection, Applicants have amended the claims to be more clearly define what is being claimed. Accordingly, Applicants believe that the rejection has been rendered moot.

Rejection of Claims 149-153, 157, 158, 161, 165-168, 171-173, 176-178, 180-190, 192, 196, 197, 200, 204-207, 210-212, 214-217, 219 and 220 Under 35 USC 101

The Examiner has rejected claims 149-153, 157, 158, 161, 165-168, 171-173, 176-178, 180-190, 192, 196, 197, 200, 204-207, 210-212, 214-217, 219 and 220 as falling, allegedly, under a category that needs a judicial exemption for patentability. Applicants disagree. However, in the interest of expediting prosecution, and in no way acquiescing to the validity of the Examiner's rejection, Applicants have amended the

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claims to indicate that the results of the claimed programs are displayed on a graphical display. Accordingly, Applicants believe that the rejection has been rendered moot.

## Rejection of Claims Under 35 USC 103(a)

The Examiner has rejected claims 112-117, 123-124, 127, 131-134, 137-139, 141, 143-145, 147-148, and 221-224 under 35 U.S.C. §103(a) as being unpatentable over Petricoin in view of Golub, Science, 286:531-537 ("Golub").

The Examiner has also rejected claims 118, 120, 142, 149-153, 157-158, 161, 165-168, 171-173, 175-178, 181-190, 192, 196-197, 200, 204-207, 210-212, 214-217 and 219-220 under 35 U.S.C. under 35 U.S.C. §103(a) as being unpatentable over Petricoin in view of Barnhill, U.S. Patent No. 6,789,069.

For the sake of brevity, the two rejections under 103(a) are addressed together because each rejection relies on the Petricoin in combination with a secondary reference.

Applicants respectfully traverse these two rejections.

Applicant's claims call for performing multivariate analysis on a first set of samples that includes samples classified into at least two different biological states (e.g., cancer and non-cancer) and, separately, performing multivariate analysis on a second set of samples that includes samples classified into the different biological states.

The method further requires the selection of first and second subsets of qualified common data elements from the first and second data sets, respectively, and further selecting an intersection subset of data elements from these two subsets.

Nowhere does Petricoin teach the selection of subsets from the first and second data sets, and additionally does not teach or suggest the selection of an intersection subset from these subsets.

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Nor does Petricoin or any of the other cited documents disclose or suggest: use of an intersection subset of data elements as Applicants disclose and claim, i.e.

"selecting an intersection subset of data elements from the first and second subsets, wherein each data element in the intersection subset is a member of both of the first and second subsets" as recited in Applicants' independent claim 112;

"a third computer readable program providing instructions for selecting an intersection subset of data elements from the initial subsets, wherein each data element in the intersection subset is a member of a majority of the initial subsets" as recited in Applicants' independent claim 149; and

"executing computer readable program code providing instructions for selecting an intersection subset of data elements from the initial subsets, wherein each data element in the intersection subset is a member of a majority of the initial subsets" as recited in Applicants' independent claim 182.

Golub fails to remedy such deficiencies of the Petricoin document. Golub merely reports that prediction strength was low from laboratories using different collection protocols, see p. 533, first column. Nowhere does Golub disclose or suggest using subsets of the original data sets to select an intersection subset.

Barnhill also does not disclose or suggest use of first and second independent discovery data sets as Applicants claim. Barnhill also does not suggest disclose or suggest using subsets of the original data sets to select an intersection subset.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the foregoing rejections.

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## CONCLUSION

In view of the above amendment and response, Applicants believe that the pending application is in condition for allowance.

A request for a three month extension of time is enclosed. The Director is hereby authorized to charge any credits or deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1105, under Order No. 58369 (71699).

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Respectfully submitted

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